The Vermont Transportation Energy Profile

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Introduction

The transportation sector is responsible for 36% of the total energy consumed in Vermont, more than any other sector in the State. Per capita transportation sector energy use is below the national average and below levels seen in four rural comparisons states. The Vermont Transportation Energy Profile tracks transportation energy trends to inform transportation-related policy-making and gauge the State's progress toward achieving the transportation-sector goals articulated in the State's 2016 Comprehensive Energy Plan.

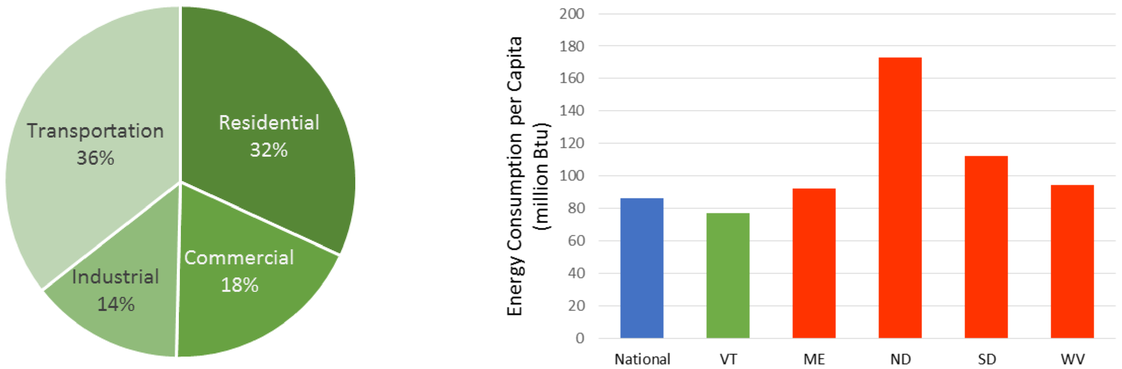

Figure 1. Vermont energy consumption by sector (left) and per capita transportation energy use (right). Source: U.S. EIA 2019.

The 2016 Vermont Comprehensive Energy Plan

The 2016 CEP was a multi-agency effort led by the Public Service Department that provides a framework for achieving the State's vision of an efficient, reliable, and heavily renewable energy future. The CEP quantified three specific goals for the transportation sector:

1. Reduce total transportation energy use by 20% from 2015 levels by 2025;
2. Increase the share of renewable energy in all transportation to 10% by 2025 and 80% by 2050;
3. Reduce transportation-emitted greenhouse gas by 30% from 1990 levels by 2025.

Trends in Energy Use and Vehicle Miles Travel

Transportation energy use declined by close to 10% between 2007 and 2017 but most of this decline took place by 2012. Since then energy use has remained relatively stable. Vehicle miles travel also declined between 2007 and 2014 but have since increased.

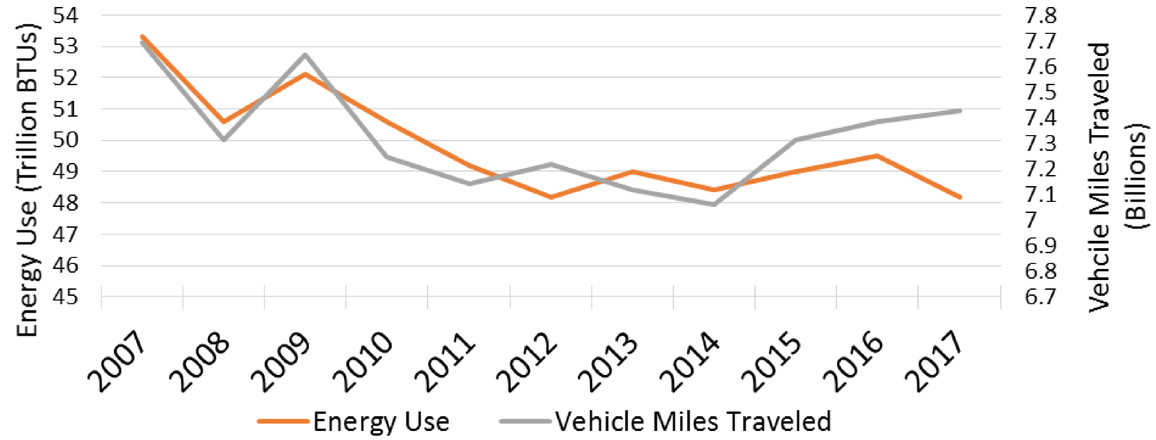

Figure 3. Vehicle miles traveled and annual transportation energy use in Vermont. U.S. EIA 2019 and FHWA 2019.

Implications

Realizing sustained reductions in energy use will require a combination of reducing miles traveled and reducing the energy used per mile traveled by switching to more efficient vehicles. If VMT is held constant, fuel efficiency per mile traveled will have to increase by close to 25% to achieve this goal.

Acknowledgments

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References

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